REMARKS

After entry of the present Amendment, claims 1-5, 7, and 9 remain pending in the application. Claims 1 and 5 are currently amended to further define the insulation layer as having light transmission of not less than 80%, as previously claimed in claims 6 and 8, respectively. Support for this amendment of claims 1 and 5 can be found in at least Paragraph [0013] as well as in claims 6 and 8. Claims 6 and 8 have been cancelled in this Amendment. No new matter has been added through the present Amendment.

The Applicants respectfully submit that the remaining claims are in condition for allowance in accordance with the reasoning described below. Alternatively, the Applicant respectfully requests entry of this Amendment for the purpose of isolating issues for Appeal.

Claims 1, 4, and 5 stand rejected under 35 U.S.C. §102(b) as being anticipated by United States Patent No. 5,116,472 to Wolter et al. (hereinafter Wolter et al.). In addition, claims 2, 3, and 6-9 stand rejected under 35 U.S.C. §103(a) as being obvious over Wolter et al. in view of United States Patent No. 4,612,409 to Hamakawa et al. (hereinafter Hamakawa et al.). The Applicants respectfully traverse. More specifically, the Applicants maintain the argument that Wolter et al. fails to teach or disclose each and every element of the present invention. In addition, the Applicants respectfully argue that the Examiner's obviousness rejection under 35 U.S.C. §103(a) of previously pending claims 6 and 8 is incorrect and that the secondary reference to Hamakawa et al. does nothing to remedy the deficiencies of Wolter et al. with respect to the claimed light transmission. Thus, the Applicants submit that the present claims are both novel and non-obvious over the prior art.

The Examiner maintains that Wolter et al. discloses a process of making a substrate including a metal layer comprising aluminum and an electrical insulation material comprising a crosslinked silicon compound, for printed circuit boards. The Examiner notes that the crosslinked silicon compound of Wolter et al. is colorless and takes the position that the insulating material is a transparent silicone layer. By having to take such a position, the Examiner is clearly acknowledging that Wolter et al. is silent about the transparency of its insulating material and that Wolter et al. in no way discloses, teaches, or even suggests the amount of light transmission of its insulating material.

As the Examiner is aware, to properly establish anticipation under 35 U.S.C. §102, a reference must teach each and every element of a claim, either expressly or inherently (see MPEP 2131). The Examiner is respectfully reminded that "[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art." MPEP 2143.03 (citing *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). Because it is clear that Wolter et al. does not expressly teach that its insulating material is transparent, let alone that its insulating material has a light transmission of not less than 80%, and also because the Examiner has to "take[s] the position" that the insulating material is transparent, it is clear that the Examiner is relying on principles of inherency in making this rejection relying on Wolter et al. (please keep in mind that the secondary reference to Hamakawa et al. does nothing to address the lack of disclosure of light transmission in Wolter et al.).

To properly establish inherency when relying on Wolter et al. to reject claims 1 and 5, the Examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of

the applied prior art." *Ex parte Levy,* 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original) [also see MPEP 2112]. The Examiner is respectfully reminded that, to establish a proper rejection in this context, the "fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (emphasis added). To this end, it is widely understood that inherency may not be established by probabilities or possibilities (once again, see MPEP 2112).

Therefore, as applied to claims 1 and 5, to properly reject these claims, the Examiner must provide a basis in fact and/or technical reasoning to support the determination that the % light transmission necessarily flows from Wolter et al. Simply stated, the Examiner has not done this. On page 4 of the current Office Action, the Examiner holds that "Wolter's silicone compound layer is a colorless layer which **clearly anticipates** the scope of the present invention". If the disclosure and/or teachings of Wolter et al. "clearly" anticipate (1) the fact that the cross-linked silicone body is transparent, (2) the fact that this silicone body has any light transmission at all, and/or (3) the fact the this silicone body has a light transmission of not less than 80%, then the Applicants respectfully request the Examiner to point to this clear anticipation within Wolter et al. Alternatively, if the Examiner cannot point to such clear anticipation, the Applicants respectfully request that the Examiner, in accordance with the requirement of inherency as outlined in the MPEP, provide extrinsic evidence as required to show that any light transmission at all and/or a light transmission of not less than 80% **necessarily** flows from whatever portion of Wolter et al. the Examiner is relying on. Notably, a mere conclusion that Wolter et al. discloses colorlessness certainly does not result in a logical conclusion that the colorless crosslinked

silicone compound of Wolter et al. permits any light transmission whatsoever, let alone a light transmission of not less than 80%.

As previously established in the written record (see the previous Amendment dated August 17, 2009), an object may be colorless while still being opaque, i.e., not transparent, or an object may have a color while still being transparent. Stated differently, the term colorless and the term transparent may have little to no relation to one another. Furthermore, the Applicants respectfully note that Example 2 of Wolter et al. discloses a colorless to bright yellow base resin used to form coatings, which the Examiner correlates to the insulation layer of the present invention. The coatings of Example 2 of Wolter et al. are specifically described as golden-yellow (see Column 12, Lines 41-42). Without further evidence, it cannot be said that the base resin of Example 2 of Wolter et al. necessarily permits any light transmission at all, let alone a light transmission of not less than 80%.

Moreover, Wolter et al. teaches in Column 8, lines 37-41 that the insulating coating may contain "usual additions such as, for example, fillers, for example mica, glass flakes and quartz particles, pigments leveling agents and the like." As readily understood by those of skill in the art, these "usual additions" would decrease any light transmission of the insulating coating of Wolter et al. which the Examiner is relying on to equate to the claimed insulation layer.

Furthermore, the Applicant again notes that the failure of Wolter et al. to disclose, teach, or even suggest a transparent insulation layer is not surprising in view of the fact Wolter et al. also fails to disclose a metal base circuit substrate <u>of an optical device</u> or a method of manufacturing such a metal base circuit substrate <u>of an optical device</u>, as claimed in the subject application. The metal base circuit substrate claimed in the subject application reflects light and

removes heat generated by operating the optical device via radiation. The process disclosed by Wolter et al., which fails to even teach transparency of an insulation layer, would not be suitable for optical devices due to the inability of the insulation layer to remove heat and reflect light. In fact, Wolter et al. is silent as the ability of the printed circuit board to reflect light.

For the reasons set forth above, it is again submitted that Wolter et al. fails to disclose an electrical insulation layer comprising a transparent cross-linked silicone body, as specifically claimed in the subject application. However, in an effort to expedite prosecution and alleviate any concerns that the Examiner may have, the Applicants have further amended independent claims 1 and 5 to make it clear that, not only is the claimed silicone body transparent, but the claimed silicone body also has a light transmission which is objectively quantified to be not less than 80%. Therefore, Wolter et al. fails to teach each and every element of claims 1 and 5, as amended, and the Examiner's rejections, including the rejections of previous claims 6 and 8, are overcome.

The Applicants do note that it is unclear as to why claims 6 and 8 are rejected as being obvious under 35 U.S.C. §103(a). The Examiner does not rely on the secondary reference to Hamakawa in any way to address transparency, light transmission, or a light transmission of not less than 80%.

In view of the foregoing, the Applicants submit that independent claims 1 and 5, as well as dependent claims 2-4, 7, and 9 which depend from these independent claims, are both novel and non-obvious over the prior art including over Wolter et al., as well as Wolter et al. in view of Hamakawa et al. As such, the Applicants believe the subject application is in condition for allowance, and such allowance is respectfully requested.

Because this response is timely filed, it is believed that no additional fees are due. However, if necessary, the Commissioner is authorized to charge Deposit Account 08-2789 in the name of Howard & Howard Attorneys PLLC for any additional fees or to credit the account for any overpayment.

Respectfully submitted,

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